Listing of Claims:

Claims 1-22 (Canceled).

23. (New) An image processing system comprising:

a photographing apparatus; and

a processing apparatus;

wherein the photographing apparatus comprises:

a plurality of light-emitting devices for emitting illumination light having characteristics of spectroscopic distributions varied in at least a visible light range;

an image pick-up optical system which forms a subject image of a subject illuminated by the light-emitting devices;

an image pick-up device unit which picks-up the subject image formed by the image pick-up optical system and outputs an image signal; and

a control unit which controls the photographing apparatus to capture images in one of a spectroscopic image capturing mode and a moving image capturing mode, selectively,

wherein in the spectroscopic image capturing mode, the control unit controls at least a plurality of the plurality of light-emitting devices, which are selected according to the characteristics of the spectroscopic distributions of the light emitting devices, to sequentially light-on, and the control unit

controls the image pick-up device unit to capture sequential spectroscopic still images of the subject simultaneously with the sequential lighting-on of the light-emitting devices; and

wherein in the moving image capture mode, the control unit one of: (i) controls a specific primary color of the light-emitting devices to light-on, and controls the image pick-up device unit to capture a moving image while the specific primary color of the light-emitting devices are lighted-on, and (ii) controls a plurality of groups of the light-emitting devices to sequentially light-on group by group, each of the groups including at least one of the light-emitting devices and the characteristics of the spectral distributions of each of the groups being different, and controls the image pick-up device unit to capture a moving image while the groups of the light-emitting devices are sequentially lighted-on; and

wherein the processing apparatus comprises a calculating unit which performs an image calculation based on an output of the image pick-up device.

24. (New) The image processing system according to claim 23, wherein the control unit sets a plurality of types of groupings of the groups of the light-emitting devices, and in the moving image capture mode the control unit selects a type of

grouping to be lighted-on in accordance with an application of the photographing apparatus.

25. (New) The image processing system according to claim 24, wherein in the moving image capturing mode, the control unit controls the plurality of groups of the light-emitting devices to sequentially light-on group by group;

wherein the plurality of groups comprise a group of the light-emitting elements which emit blue light in the visible range, a group of the light-emitting elements which emit red light in the visible light range, and a group of the light-emitting elements which emit green light in the visible light range; and

wherein in the moving image capturing mode, the control unit controls the image pick-up device unit to pick-up a frame of the moving image each time one of the groups is lighted-on, so as to capture a three-primary-color moving image.

26. (New) The image processing system according to claim 23, wherein the photographing apparatus further comprises:

a photographing operating unit which inputs at least an instruction for starting a spectroscopic image photographing operation to capture the spectroscopic still images of the subject in the spectroscopic image capturing mode.

27. (New) The image processing system according to claim 26, wherein a plurality of groupings of the groups of the light-emitting devices are set, the photographing operating unit comprises a pressing button switch, and the control unit changes a grouping to be lighted-on upon pressing of the button switch.

28. (New) The image processing system according to claim 27, wherein the control unit controls light-on timings of the light-emitting devices of the groups of the changed grouping, upon pressing of the button switch.

29. (New) The image processing system according to claim 26, wherein the photographing operating unit includes a pressing button switch, and the control unit switches between the spectroscopic image capturing mode and the moving image capturing mode in accordance with pressing of the button switch.

30. (New) The image processing system according to claim 23, wherein the image pick-up device unit comprises a color image pick-up device having a color filter array.

31. (New) The image processing system according to claim 30, wherein at least one of the plurality of light-emitting

devices has a characteristic of spectroscopic distribution extending between different bands of the color filter array.

32. (New) The image processing system according to claim 23, wherein the photographing apparatus further comprises:

a spectrum sensor which senses the characteristics of the spectroscopic distributions of the light-emitting devices.

33. (New) The image processing system according to claim 23, wherein the photographing apparatus further comprises:

a spectrum sensor which senses a characteristic of spectroscopic distribution of ambient light.

34. (New) The image processing system according to claim 23, wherein the photographing apparatus further comprises:

a display section for displaying an image based on the image signal outputted from the image pick-up device unit.

35. (New) The image processing system according to claim 23, wherein the photographing apparatus further comprises:

an abutting portion which is abutted to the subject at one end of the photographing apparatus.

36. (New) The image processing system according to claim 35, wherein the abutting portion comprises a flexible material with a cylindrical shape.

37. (New) The image processing system according to claim 35, wherein the abutting portion comprises a material which prevents or reduces influence of ambient light.

38. (New) The image processing system according to claim 35, wherein the abutting portion is detachably coupled to a casing of the photographing apparatus.

39. (New) The image processing system according to claim 23, wherein the processing apparatus further comprises an image memory unit which stores the spectroscopic still images photographed by the photographing apparatus in the spectroscopic image capturing mode; and

wherein the calculating unit comprises a color-reproduction calculating unit for calculating image data for displaying an image of the subject which is color-reproduced at a high fidelity level based on the spectroscopic still images stored in the image memory unit.

40. (New) The image processing system according to claim 39, wherein the color-reproduction calculating unit generates image data of XYZ tristimulus values, and the calculating unit generates an input profile for generating the image data of the XYZ tristimulus values using at least one of illumination light spectrum data and characteristic data of the image pick-up device unit.

41. (New) The image processing system according to claim 39, wherein the calculating unit determines or analyzes the subject based on at least one of the spectroscopic still images stored in the image memory unit, and the calculating unit outputs a result of the determining or analyzing.